BOGATKIN, V., voyennyy khudozhnik.

In the people's China; from a painter's diary. Sov.mor. 17 no.18:16-18 S '57. (MIRA 10:11)
(China--Description and travel) (Bogatkin, Vladimir Valer'yanovich)

BOGATKIN, Vladimir Valerianovich

[Journey in China; an artist's diary] Poezdka v Kitai; dnevnik khudozhnika. Moskva, Sovetskii khudozhnik, 1959. 137 p.

(China--Description and travel) (MIRA 13:3)

BOGATKO, A.N.; MARIYENGOF, B.I.

Organization of all-metal car repair at the Otrozhki Plant.
Zhel. dor. transp. 37 no.8:25-28 Ag '55. (MIRA 12:8)

1.Nachal'nik Otrozhskogo zavoda (for Bogatko). 2.Glavnyy inzhener Otrozhskogo zavoda (for Mariyengof).
(Otrozhki--Railroads--Cars--Maintenance and repair)

KHEYFETS, I.L.; BOGATKOV, A.S.

Forging and annealing blanks for dies used in cold upsetting. Kuz.-shtam.proizv. 5 no.4:16-17 Ap '63. (MIRA 16:4)
(Forging) (Annealing of metals) (Dies (Metalworking))

BOGAT'KO, M. [Bahat'ko, M.]

Curing reinforced concrete products in semiautoclave steam chambers. Bud.mat.i konstr. 1 no.1:27-28 O '59. (MIRA 13:8)
(Concrete--Curing)

БОГАТКОВ Н.М.

BOGATKOV, N.M.

Karst in the Little Khingan Mountains. Vop.geog.Dal'.Vost. no.3:162-163 '57. (MIRA 10:12)

(Khingan Mountains--Karst)

BOGATKOV, N.M.

BOGATKOV, N.M.

Mineral waters in the environs of Khabarovsk. Vop.geog.Dal'. Vost. no.3:163-166 '57. (MIRA 10:12)
(Khabarovsk--Mineral waters)

BOGATKOV, N.N., inzh.-gidrogeolog

Degree of the hydrogeological knowledge about the Amur Valley.
Amur. sbor. no. 1:115-117 '59. (MIRA 14:2)

1. Deystvitel'nyy chlen Geograficheskogo obshchestva SSSR.
(Amur Valley--Water, Underground)

BOGATKOV, N.M., inzhener-gidrogeolog

Mineral springs of the Amur Basin. Amur. sbor. no.2:241-258 '60.
(MIRA 15:3)

1. Deystvitel'nyy chlen Geograficheskogo obshchestva SSSR.
(Amur Valley--Mineral waters)

BOGATKOV, N.M.

Hot springs of the Kul'dur Valley. Sov.geol. 5 no.8:157-161 Ag '62. (MIRA 15:9)

1. Dal'nevostochnoye geologicheskoye upravleniye.
(Kul'dur Valley--Geysers)

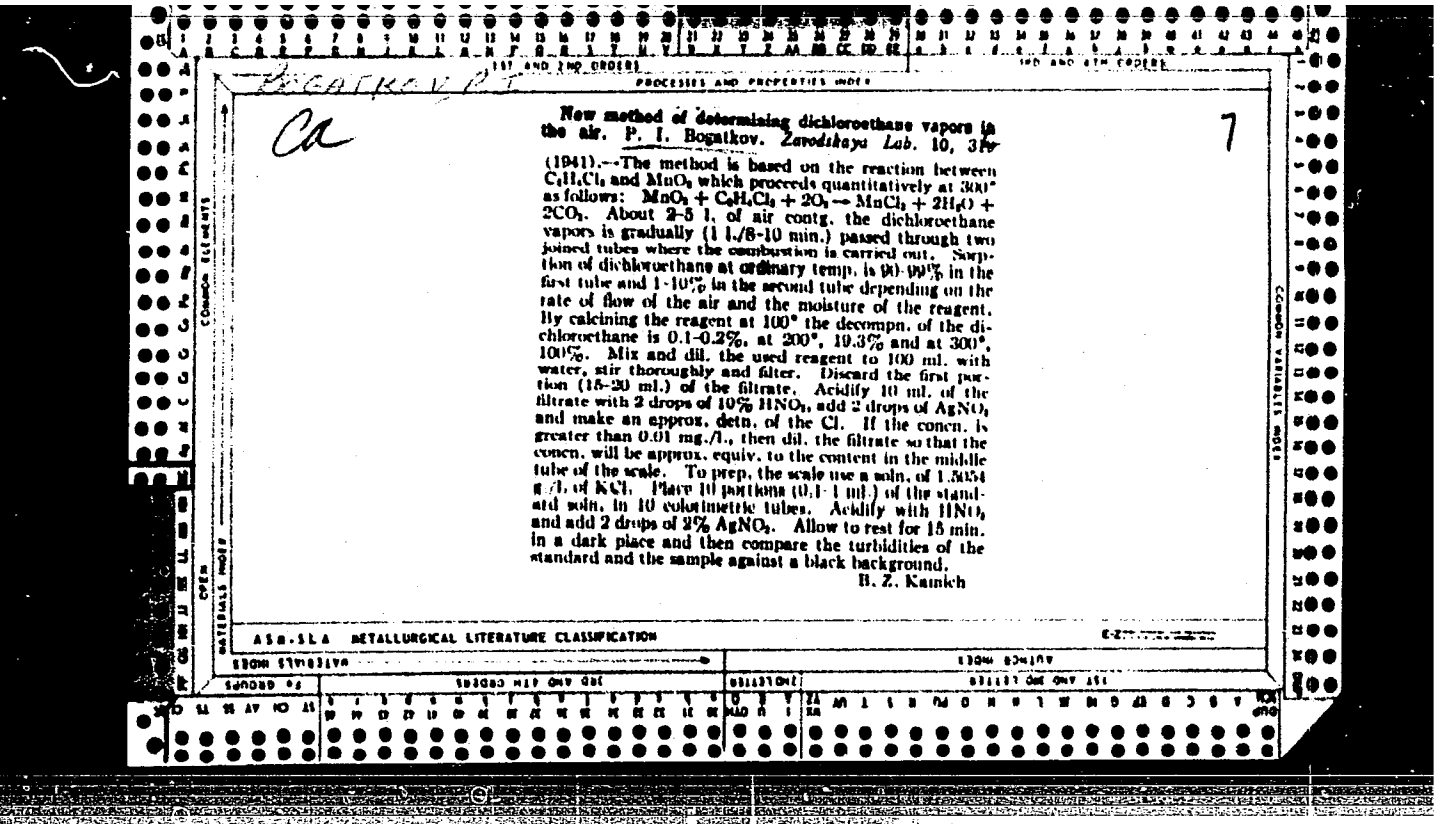
BOGATKOV, N.M.

Problems in the hydrogeology and engineering geology of the southern part of the Far East. Mat. Kom. po izuch. podzem. vod. Sib. i Dal' Vost. no.2:205-212 '62. (MIRA 17:8)

BOGATKOV, N.M.

Mineral springs of the Maritime Territory and the Amur Valley. Okhr. prir. na Dal'. Vost. no.1:149-158 '63. (MIRA 18:7)

1. Dal'nevostochnoye geologicheskoye upravleniye.



BOGATKOV P I

Ca

7

**New method of determining dichloroethane vapors in the air.** P. I. Bogatkov. *Zavodskaya Lab.* 10, 31[illegible] (1941).—The method is based on the reaction between $C_2H_4Cl_2$ and $MnO_2$ which proceeds quantitatively at 300° as follows: $MnO_2 + C_2H_4Cl_2 + 2O_2 \rightarrow MnCl_2 + 2H_2O + 2CO_2$. About 2–5 l. of air contg. the dichloroethane vapors is gradually (1 l./8–10 min.) passed through two joined tubes where the combustion is carried out. Sorption of dichloroethane at ordinary temp. is 90–99% in the first tube and 1–10% in the second tube depending on the rate of flow of the air and the moisture of the reagent. By calcining the reagent at 100° the decompn. of the dichloroethane is 0.1–0.2%, at 200°, 19.3% and at 300°, 100%. Mix and dil. the used reagent to 100 ml. with water, stir thoroughly and filter. Discard the first portion (15–20 ml.) of the filtrate. Acidify 10 ml. of the filtrate with 2 drops of 10% $HNO_3$, add 2 drops of $AgNO_3$ and make an approx. detn. of the Cl. If the concn. is greater than 0.01 mg./l., then dil. the filtrate so that the concn. will be approx. equiv. to the content in the middle tube of the scale. To prep. the scale use a soln. of 1.3654 g./l. of KCl. Place 10 portions (0.1–1 ml.) of the standard soln. in 10 colorimetric tubes. Acidify with $HNO_3$ and add 2 drops of 2% $AgNO_3$. Allow to rest for 15 min. in a dark place and then compare the turbidities of the standard and the sample against a black background.

B. Z. Kanich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR: Bogatkov, P.I. [redacted] 32-24-4-58/67

TITLE: A Device for the Determination of Carbon Dioxide in Air (Pribor dlya opredeleniya dvuokisi ugleroda v vozdukhe)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 499-500 (USSR)

ABSTRACT: A portable device the dimensions of which are 17x23x30 cm and weighing 1.25 kg is described. It may be seen from the schematical drawing given that the basic elements are two pumps, a U-shaped tube, which contains a mixture of 75% soda lime and 25% caustic potash for the absorption of carbon dioxide, and a manometer filled with colored petroleum. When the pumps are adjusted the manometer must be at zero if no measurement is carried out. If the moisture of the air exceeds 40-50%, testing of the air can be carried out by means of a small tube filled with calcium chloride, so that the accuracy of carbon dioxide determination is not influenced. Calibration of the apparatus is carried out by evacuation according to a working technique described. The carbon dioxide content is determined from the calibration curve. The sensitivity of the device is given as being 0.05 - 0.1 vol.% carbon-

Card 1/2

A Device for the Determination of Carbon Dioxide in Air 32-24-4-58/67

dioxide and determination takes 1 - 2 minutes. There is 1 figure, and 1 reference, which is Soviet.

1. Carbon dioxide--Determination 2. Air--Analysis 3. Gas analyzers--Design 4. Gas analyzers--Performance

Card 2/2

BOGATKOV, P.I., kand.khim.nauk; NEFEDOV, Yu.G., kand.med.nauk (Moskva)

Analysis of air in industrial environment with several toxic components. Gig. i san. 24 no.3:70 Mr '59. (MIRA 12:5)
(AIR POLLUTION, determ.
in indust. (Rus))

21889
S/177/61/000/002/002/005
D234/D305

27.0000

AUTHORS: Bogatkov, P.I., Candidate of Chemical Sciences, Nefedov, Yu.G., Candidate of Medical Sciences, and Poletayev, M.I.

TITLE: Expired air as a source of carbon monoxide contamination of air in hermetically sealed rooms

PERIODICAL: Voyenno-meditsinskiy zhurnal, no. 2, 1961, 37 - 39

TEXT: Carbon monoxide in the expired air of a healthy man is formed endogenously. Shostrand [Abstractor's note: No reference given] measured 0.0021 - 0.0024 % and noted a marked rise in diseases causing an oxygen deficit, after hard physical work and the inspiration of 6 - 7 % $CO_2$ or oxygen deficient air. Kon-Abre [Abstractor's note: No reference given] added asphyxias and several other pathological processes. The blood level of carboxyhaemoglobin may reach 4 % as a result of endogenous formation. The mechanism of formation is not yet established. In vitro, experiments with animal blood show that carbon monoxide is formed at 38°, the content increasing

Card 1/4

by 83 % in 20 hours. During haemolysis the carbon monoxide content doubles (Shostrand 1951). It increases in the conversion of haemoglobin to cholehaemoglobin under the influence of ascorbic acid (1952). Analogous results were obtained in in-vitro work on the combined oxidation of myoglobin and ascorbic acid. Myoglobin is converted to bile pigments, giving off carbon monoxide. Endogenous CO is excreted by the reversible dissociation of COHb: CO + Hb $\rightleftharpoons$ $\rightleftharpoons$ COHb. While studying the air composition in a hermetically sealed room a gradual rise of carbon monoxide concentration was noted. There were no technical sources to cause this, yet by the end of the experiment the concentration was close to the industrially permitted limit. Therefore, the possibility of the rise being caused by the pulmonary and, perhaps, skin respiration of the people in the room was investigated. Three subjects were in a 24 $m^3$ hermetic chamber doing normal physical and mental work. The temperature in the first experiment was maintained at 8° - 10°, in the second at 28° - 30°, relative vapor density 45 - 50 %. A special apparatus was used to replenish oxygen and remove carbon dioxide, allowing

S/177/61/000/002/002/005
D234/D305

Expired air as a source of ...

the air composition in the chamber to be maintained as 19 - 25 % oxygen, 0.2 - 0.8 carbon dioxide. Possible experimental sources of carbon monoxide formation e.g., burning organic material, smoking etc., were excluded as was formation by the replenishing apparatus. Air analysis for CO was made twice per 24 hours using apparatus, type LKB 3267A[1]. The specificity of the method was checked on chemical components of the chamber air - carbon dioxide, ammonia, methylamines and aldehydes, and found to be reliable. Air analysis: the subject made two full expirations through a gas pipette, volume 250 $m^3$; two successive trials were chosen; air from the pipette passed through the indicator tube and the carbon monoxide content was determined by comparing the color intensity of the reacting substance with the standard scale. Data for smokers and non-smokers are given in tabulated form. The expired air of non-smokers contains on average 0.016 mg/l of carbon monoxide of smokers 0.038 mg/l. The results for non-smokers are approximately 20 % below Shostrand's due to the different methods of carbon monoxide determination. Carbon monoxide concentration went on rising as long as

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S/177/61/000/002/002/005
D234/D305

Expired air as a source of ...

the experiment continued reaching 0.023 - 0.027 mg/l after nine to ten days. Temperature had no effect on the rate of increase or on concentration. It is not yet possible fully to evaluate the significance of this carbon monoxide formation from a sanitary and hygienic point of view, but such high concentrations of carbon monoxide may be reckoned disadvantageous especially if people have to be in such hermetically sealed chambers continuously and for a long time. There are 1 table and 1 figure.

SUBMITTED: December 1959

Card 4/4

BOGATKOV, P. K.

AID P - 2134

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 3/18

Authors : Arkhipov, A. Dotsent; Bogatkov, P. K., Kand. of Chem. Sci., Oreshkevich, I. V., Eng.; Seredinina, Kand. of Med. Sci.

Title : The problem of the purification of ventilated air from tetraethyl lead

Periodical: Gig. i san., 3, 1-16, Mar 1955

Abstracts: Describes different methods, filters and solutions used for air purification and discusses their respective efficiency in eliminating the toxic effect of T. E. L. Tables, diagram.

Institution: Gor'kiy Institute of Industrial Hygiene and Occupational Diseases of the Ministry of Health of the USSR

Submitted : 0 6, 1954

L 11457-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(n)-2/EWP(k)/EWP(t)/EPA(bb)-2/EWP(b) Pf-4/
Pt-10/Pu-4 IJP(c) JD/WW/JG

ACCESSION NR: AP4046373 S/0020/64/158/003/0586/0589

AUTHORS: Palatnik, L. S.; Fedorov, G. V.; Bogatov, P. N. 8

TITLE: Investigation of the processes of evaporation and volume condensation of alloys

SOURCE: AN SSSR. Doklady*, v. 158, no. 3, 1964, 586-589, and insert facing p. 588

TOPIC TAGS: alloy diagram, evaporation, condensation, 18 volume condensation, lead alloy, zinc alloy, alloy composition

ABSTRACT: In view of the relatively few publications devoted to evaporation and condensation of metals and alloys in the absence of ready-made solid condensation surfaces, the authors evaporated metals from alundum crucibles in a vacuum chamber (volume of approximately 15 liters) filled with argon. Because of the small mean free path of the molecules, the metals condensed not on the walls

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L 11457-65

ACCESSION NR: AP4046373



of the vacuum chamber but inside the volume of inert gas. The systems studied were Pb-Sb, Zn-Cd, and Pb-Bi. Two sets of tests were made: in one set the alloys were heated to different temperatures (450--1300C) and argon pressures (3--10 mm Hg) to check on the selective evaporation and condensation of the individual components. It was found that above a certain temperature, which varies with the alloy, both components evaporate and condense without change in composition. In the second set of tests several metals were condensed simultaneously at temperatures low enough (80 and 250C) to produce supersaturation of the metal vapor. In the case of the Pb-Sb system, the condensed powders were a mechanical mixture of particles of pure components. In the case of Bi-Sb condensates, the particles were solid solutions with a wide range of component concentrations. It is concluded that volume condensation of alloys is greatly influenced by the type of the state diagram of the alloy and by the evaporation temperature. This report was presented by S. A. Vekshinskiy. Orig. art. has: 3 figures.

Card 2/3

L 11457-65
ACCESSION NR: AP4046373

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V. I. Lenina (Khar'kov Polytechnic Institute).

SUBMITTED: 15Jun64 ENCL: 00

SUB CODE: MM NR REF SOV: 009 OTHER: 004

Card 3/3

CHERKASOVA, Ye.M.; BOGATKOV, S.V.

Synthesis of some 1-alkyl-1-phenyl-2-diethyl-1-aminoethanols and their esters. Zhur. ob. khim. 31 no.3:810-815 Mr '61. (MIRA 14:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.
(Ethanol)

CHERKASOVA, Ye.M.; BOGATKOV, S.V.

Methylamino- and methylbenzylaminophenylalkylethanols. Izv.vys.-ucheb.zav.;khim.i khim.tekh. 5 no.2:284-288 '62. (MIRA 15:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova, kafedra organicheskoy khimii.
(Ethanol)

CHERKASOVA, Ye.M.; BOGATKOV, S.V.

Progress in the field of local anestetic chemistry during the last 10 years. Usp.khim. 31 no.8:963-988 Ag '62. (MIRA 15:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.

(Anesthetics)

CERKASOVA, E.M. [Cherkasova, Ye.M.]; BOGATKOV, S.V.

Progress of local anesthetic chemistry in the last decade. Analele chimie 18 no.2:63-93 Ap-Je '63.

BOGATKOV, V.; GAL'PERSHTEYN, L.; KHLEBNIKOV, P.

Electric meters. Znan.sila 30:no.12:insert:1-3 D '55. (MLRA 9:4)
(Electric meters)

FIRSOV, I.P.; GUSEV, A.I.; BOGATKOV, V.N.

Extra-curricula work on technology. Fiz. v shkole 13 no.4:44-50 Jl-Ag '53. (MLRA 6:6)

1. Tsentral'naya stantsiya yunykh tekhnikov imeni N.M. Shvernika. (Technical education)

ANTIPIN, V.I.; BUDANOV, N.D.; KOTLUKOV, V.A.; LEYBOSHITS, A.M.; PROKHOROV, S.P.,, kand.geol.-miner.nauk; SIRMAN, A.P.; FALOVSKIY, A.A.; SHTEYN, M.A.; BASKOV, Ye.A.; BOGATKOV, Ye.A.; GANEYEVA, M.M.; ZARUBINSKIY, Ya.I.; IL'INA, Ye.V.; KATSIYAYEV, S.K.; KOMPANIYETS, N.G.; NELYUBOV, L.P.; PONOMAREV, A.I.; REZNICHENKO, V.T.; RULEV, N.A.; TSELIGOROVA, A.I.; ALSTER, R.K.; SHVETSOV, P.F.; VYKHODTSEV, A.P.; KOTOVA, A.I.; KASHKOVSKIY, G.N.; LOSEV, F.I.; ROMANOVSKAYA, L.I.; PROKHOROV, S.P.; MATVEYEV, A.K., dots., retsenzent; CHEL'TSOV, M.I., inzh., retsenzent; KUDASHOV, A.I., otv. red.; PETRYAKOVA, Ye.P., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[State of flooding and conditions for the exploitation of coal-bearing areas in the U.S.S.R.] Obvodnennost' i usloviia ekspluatatsii mestorozhdenii ugol'nykh raionov. Pod nauchn. red. S.P.Prokhorova. Moskva, Gosgortekhizdat, 1962. 243 p. (MIRA 15:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii. 2. Kafedra geologii i geokhimii goryuchikh iskopayemykh Moskovskogo Gosudarstvennogo universiteta (for Matveyev).

(Coal geology) (Mine water)

32921

S/194/61/000/011/056/070
D271/D302

9,2572 (1139)

AUTHORS: Bogatkova, O.M., Gershenzon, Ye.M., Dombrovskaya, T.S., Ptitsyna, N.G., Rozhkova, G.I., Sperantov, V.V. and Etkin, V.S.

TITLE: Single-circuit regenerative and super-regenerative parametric amplifiers with semiconductor diodes

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 12, abstract 11 K91 (V sb. Poluprovodnik. pribory i ikh primeneniye, no. 6, M., Sov. radio, 1960, 41-62)

TEXT: Theoretical and experimental results are given of a study of single-circuit regenerative and super-regenerative parametric amplifiers with semiconductor diodes. The amplifier forward and reflex operation in a synchronous and biharmonic mode is considered. Results of the investigation into noise parameters of the diode are given. Experiments confirmed the analytical results. It

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Single-circuit...

is shown that super-regenerative operation leads to considerable distortions of the received signal spectrum, but on the other hand it makes it possible to widen the amplifier bandwidth and to achieve greater stabilization of gain. 8 references. [Abstracter's note: Complete translation]

4

Card 2/2

BOGATOV, A.A., master reostatnykh espytaniy

Rheostatic tests constitute an important factor in striving for diesel fuel economy. Elek.i tepl.tiaga 6 no.12:12 D '62.
(MIRA 16:2)
(Diesel locomotives)

BOGATOV, Anatoliy Danilovich, kand. tekhn. nauk; ZUBYNIN, Yuriy Leonidovich; BASHCHENKO, N.T., ved. red.

[Ore concentration in flow launers] Obogashchenie na struinykh zhelobakh. Moskva, Nedra, 1965. 97 p. (MIRA 18:4)

BOGATOV, A. I.

25920 Bogatov, A. I. Khirurgicheskoe lechenie kauzalgiy. V sb: Problemy vosstanovit. Lechenya invalidov Otechestv. Voyny. Astrakhan', 1948, s. 146-54.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

BOGATOV, A. I.

25918 Bogatov, A. I. Vtorichnyy shov pri ognestrel'nykh ranakh myaggikh tkaney. V sb: Problemy vosstanovit. Lecheniya invalidov Otechestv. voyny Astrakhan', 1948, s. 227-34.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

BOGATOV, A. I.

25919 Bogatov, A. I. Operativnyye dostupy k podklyuchichnoy arterii pri travmaticheskoy anevrizme. V sb: Problemy vosstanovit. Lecheniya invalidov Otechestv. Voyny. Astrakhan', 1948, s. 235-39.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

BOGATOV, A. I.

33544

Professor Vasiliy Mikhavlovich Bal'. (Khirurg. K 60-Letiyu So Dnya Rozhdeniya). Khirurgiya, 1949, № 10, c. 74 -74, s portr

SO: Letopis' Zhurnal'nykh Statey, Vol 45, Maskva, 1949

BOGATOV, A. I.

Doc Med Sci - (diss) "Clinico-morphological characteristics of extremities frozen to the III and IV degrees." Astrakhan', 1961. 29 pp with diagrams; (Kuybyshev State Med Inst); 300 copies; price not given; (KL, 7-61 sup, 255)

BOGATOV, A.N.

FOKHT, L.G., inzh.; BOGATOV, A.N., inzh.

The BTK-5/8 tubular tower crane. Biul. tekh. inform. 4 no.2:16-17 F '58. (MIRA 11:3)

(Cranes, derricks, etc.)

FOKHT, L.G.; BOGATOV, A.N.

New designs of erecting cranes. Biul.tekh.-ekon.inform. no.10: 38-41 '58. (MIRA 11:12)
(Cranes, derricks, etc.)

POLYAKOV, V., kand.tekhn.nauk; BOGATOV, A.N., inzh.

Cranes for mass housing construction. Stroitel' no.11:22 N '59. (MIRA 13:3)
(Cranes, derricks, etc.)

BOGATOV, A. N.

PHASE I BOOK EXPLOITATION SOV/5601

Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu

Stroitel'no-montazhnyye krany; spravochnoye posobiye (Construction Erection Cranes; a Manual) 2d ed. Moscow, Gosstroyizdat, 1960. 411 p. Errata slip inserted. 30,000 copies printed.

Scientific Ed.: S. P. Yepifanov, Candidate of Technical Sciences; Ed. of Publishing House: I. L. Kromoshch; Tech. Ed.: N. I. Rudakova.

PURPOSE: This manual is intended for technical personnel of design offices and building organizations concerned with the overall mechanization of construction erection operations.

COVERAGE: The manual contains a brief description of designs of cranes used in erection work and data on cranes, including purposes, specifications and functional diagrams, reference data

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on performance, composition of crews, required labor consumption, the cost of mounting and dismounting, and the arrangement of tracks. Also contained in the book are data on standard winches, anchors, and ropes, graphs on the cost of the crane operation per shift, basic considerations in the selection of cranes, and the methods for determining performance. The Foreword and Part I of the manual were written jointly by V. I. Polyakov, Candidate of Technical Sciences, and V. A. Solov'yev, Engineer. Parts II and III were written by Polyakov, Solov'yev, and A. N. Bogatov, Engineer. Ch. 4, Section 2, of Part I was written by S. P. Yepifanov, Candidate of Technical Sciences. Ch. I, Sections 1 and 3, and Ch. III of Part I and the tables of means of transportation and graphic data for Parts I and III (Ch. 2, 4, 6, and 7) were compiled by Solov'yev. Ch. I, Section 2, of Part I, the tables of the technical characteristics of cranes, the characteristic of tracks (together with Yu. A. Borisenko), and the graphic material for Parts II (entirely) and III (Chs. 1, 3, and 5) were compiled by Bogatov. The portion of Part I dealing with

tracks for tower cranes was written by Borisenko. Ch. 7 of Part III was written by Solov'yev; Ch. 8 of Part III, by Yepifanov, Solov'yev, Bogatov, and Polyakov. The cost of crane operation per shift was determined by Yepifanov, Solov'yev, and L. Ya. Grigor'yeva, Engineer, with the participation of Polyakov. M. Ye. Cherkasova, Engineer, Senior Technicians Z. A. Yagodkina, L. F. Sosedkina, and T. S. Devyatova, and Technician N. T. Trushakina selected the materials and plotted the diagrams. There are no references.

TABLE OF CONTENTS:

Construction Erection Cranes; a Manual SOV/5601



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Construction Erection Cranes; a Manual SOV/5601



AVAILABLE: Library of Congress

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JP/pw/ec
11-2-61

BOGATOV, A.V.

GASTEV, A.P., kandidat tekhnicheskikh nauk; BOGATOV, A.V., retsenzent; BALYASNIKOV, P.S., retsenzent; ARKHANGEL'SKIY, S.S., redaktor; MEDVEDEV, L.Ya., tekhnicheskiy redaktor

[Mechanical spinning of wool] Apparatnoe priadenie shersti. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 385 p. (MLRA 8:3)
(Woolen and worsted spinning)

BOGATOV, A.V.

AUTHOR: None Given

28-58-1-6/34

TITLE: A Readers Conference in Leningrad (Chitatel'skaya konferentsiya v Leningrade)

PERIODICAL: Standartizatsiya, 1958, # 1, p 21 (USSR)

ABSTRACT: Information is given on a conference held by readers and authors of "Standartizatsiya" in Leningrad on 19 December 1957. The conference was organized by the editors of the magazine and the Leningrad Branch of the Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti (NTOMAShPROM) (Scientific-Technical Society of Machine-Construction Industry). Chief Editor A.V. Bogatov, made a report on the periodical's work and the work plan for 1958. Chief of the BNS NII, I.K. Grigor'yev, and Chief of a BNS, A.P. Saunin, were among the 14 persons taking part in discussions. The latter pointed out that some managers of organizations and plants underestimate the importance of a BNS, and as there can be no serious standardization work done by a plant without a BNS, the periodical must start a campaign against such false suppositions.

It was recommended at the conference, that the periodical be concerned mainly with: the theoretical basis of stand-

Card 1/2

ardization; more attention be paid to the economic effect of standardization; methods of calculation of the economic effect of standardization and normalization be explained; basic standardization instruction at educational institutions and instruction for practical workers be increased; projects of most important standards which concern industry in general be published; and the importance of the plants' BNS be brought to light.

AVAILABLE: Library of Congress

Card 2/2

BOGATOV, A.V.; KUKIN, G.N.

Using the "tex" system in determining the fineness of fibers and yarn. Standartizatsiia 25 no.9:32-35 S '61. (MIRA 14:9)
(Textile fibers--Testing)
(Yarn--Testing)

BOGATOV, A.V.

State standard for determining the thickness of fibers and yarn according to the tex system. Tekst.prom. 25 no.2:88-91 F '65.
(MIRA 18:4)

1. Chlen Gosudarstvennogo komiteta standartov, mer i izmeritel'nykh priborov SSSR.

BOGATOV, Geral'd Borisovich; BYALIK, Gavriil Iosifovich; KOLCHINSKIY, M.L., red.; BORUKOV, N.I., tekhn.red.

[Applied television units] Prikladnye televizionnye ustanovki. Moskva, Gos. energ. izd-vo, 1959. 54 p. (Massovaia radiobiblioteka, no.320) (MIRA 12:2)

(Industrial television)

PHASE I BOOK EXPLOITATION SOV/5005

Bogatov, Geral'd Borisovich

Elektrolyuminestsentsiya i vozmozhnosti eye primeneniya. (Electroluminescence and Its Possible Applications) Moscow, Gosenergoizdat, 1960. 47 p. 30,000 copies printed. (Series: Massovaya radiobiblioteka, vyp. 364)

Editorial Board: A.I. Berg, F.I. Burdeynyy, V.A. Burlyand, V.I. Vaneyev, Ye.N. Genishta, I.S. Dzhigit, A.M. Kanayeva, E.T. Krenkel', A.A. Kulikovskiy, A.D. Smirnov, F.I. Tarasov, and V.I. Shamshur. Ed.: Ya.I. Efrussi; Tech. Ed.: K.P. Voronin.

PURPOSE: This booklet is intended for advanced radio amateurs and readers becoming interested in the problems of electroluminescence.

COVERAGE: The author discusses properties and characteristics of electroluminescent condensers, describes certain constructions of experimental electroluminescent devices and analyses possibilities of using electroluminescence phenomena, together with those of photoconductivity and ferroelectricity [Seignette salt] of solid bodies, in illumination, television, motion-picture, and computer equipment. No personalities are mentioned. There are no references.

Card 1/2

PHASE I BOOK EXPLOITATION SOV/5226

Bogatov, Geral'd Borisovich

Kak bylo polucheno izobrazheniye obratnoy storony Luny (How the Image of the Far Side of the Moon Was Obtained) Moscow, Gosenergoizdat, 1960. 64 p. 50,000 copies printed. (Series: Massovaya radiobiblioteka, vyp. 385)

Editorial Board: Berg, A. I., Burdeynyy, F. I., Burlyand, V. A, Vaneyev, V. I., Genishta, Ye. N., Dzhigit, I. S., Kanayeva, A. M., Krenkel', E. T., Kulikovskiy, A. A., Smirnov, A. D., Tarasov, F. I, and Shamshur, V. I. Ed.: S. I. Katayev, Tech. Ed.: K. P. Voronin.

PURPOSE: This popular booklet is intended for radio amateurs.

COVERAGE: The booklet discusses the operating principles of the devices used in photographing the far side of the Moon. The photographing technique used to take the picture, the method employed to convert the photograph into electric signals, and the general role of radioelectronics in space exploration are described.

Card 1/3

Attention is given to some of the problems solved by Soviet scientists and engineers to effect the transmission and reception of the signals. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

BOGATOV, Geral'd Borisovich; SHUMIKHIN, Yu.A., red.; LARIONOV, G.Ye., tekhn. red.

[Achievements and objectives of present-day television] Dostizheniia i zadachi sovremennogo televideniia. Moskva, Gos. energ. izd-vo, 1961. 175 p. (Massovaia radiobiblioteka, no.425) (MIRA 15:2)

(Television)

ZELENSKIY, S.I., red.; MIKHAILKOV, K.V., red.; BOGATOV, G.B., red.;
ZHITNIKOVA, O.S., tekhn. red.

[Industrial television systems] Sistemy promyshlennogo televideniia; sbornik statei. Moskva, Gos. energ. izd-vo, 1962. 243 p.
(MIRA 15:3)
(Industrial television)

BOGATOV, Geral'd Borisovich; GESSEN, L.V., red.izd-va; TIKHOMIROVA, S.G., tekhn.red.; GUS'KOVA, O.M., tekhn.red.

[Television on the earth and in space] Televidenie na zemle i v kosmose. Moskva, Izd-vo Akad.nauk SSSR, 1961. 206 p. (Television) (MIRA 14:12)

ACC NR: AM6021851 Monograph UR/

Bogatov, Geral' Borisovich

Television transmissions from outerspace (Televizionnyye peredachi iz kosmosa) Moscow, Izd-vo "Nauka," 1966. 303 p. illus. 30,000 copies printed. Series note: Akademiya nauk SSSR. Nauchno-populyarnaya seriya

TOPIC TAGS: space electronics, space communication, space TV, TV equipment, signal transmission

PURPOSE AND COVERAGE: This book, intended for a wide circle of readers interested in television, discusses the use of television equipment during manned space flights and the role television will play in the establishment of extraterrestrial observatories. Problems of transmitting radio and television signals over cosmic distances is considered as well as prospects for space television communications using electromagnetic waves in the optical range. There is a detailed discussion of present and planned use of space vehicles for relaying television programs over intercontinental distances. The principles of organizing ground radio-reception systems and a radio command network are described, along with means for detecting television signals and special methods of processing the signals received. There are 90 figures.

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ACC NR: AM6021851

TABLE OF CONTENTS [abridged]:



SUB CODE: 17, 09, 22/ SUBM DATE: 12Feb66/

Card 2/2

ALEKSEYEV, Vladimir Ivanovich; ZARETSKIY, [illegible]; TYUKOVIN, I.N.; BOGATOV, I.P., retsenzent; BELOV, M.I., retsenzent; IVANOV, K.A., retsenzent; MEYYEROVICH, M.G., retsenzent; ORFANOV, I.K., retsenzent; PITOV, S.M., retsenzent; TONYAYEV, V.I., retsenzent

[Moscow-Gorkiy-Moscow; guidebook on the Moscow Canal, and the Volga, Oka, and Moscow Rivers] Moskva - Gor'kii - Moskva; putevoditel' po kanalu imeni Moskvy, Volge, Oke i Moskve-reke. Moskva, Izd-vo "Transport," 1964. 101 p. (MIRA 17:6)

BOGATOV, K.

Toward new boundaries. NTO 3 no.9:26 S '61. (MIRA 14:8)

1. Predsedatel' soveta Nauchno-tekhnicheskogo obshchestva Stalingradskogo zavoda burovogo oborudovaniya.
(Stalingrad--Boring machines)

BOGATOV, K.A.

Combined brigades introduce new equipment. Mashinostroitel' no.3:43-44 Mr '61. (MIRA 14:3)
(Industrial equipment--Technological innovations)

28232
S/581/61/000/000/003/020
D299/D304

17.1220

AUTHORS: Bogatov, L.V. and Koshurnikova, N.A.

TITLE: Changes in the blood system of rabbits with multiple repeated external gamma-irradiation

SOURCE: Lebedinskiy, A.V. and Moskalev, Yu.I., eds. Biologicheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 29-37

TEXT: For a fuller study of the changes in the rabbit blood system throughout the whole period of prolonged gamma-radiation a complex study of the findings from hematological and cystological examination of the hemopoietic organs was made. The rabbits were killed off after total doses of 210, 420, 630, 900, 1410, 1920 and 2490 r. A detailed account of the changes in the bone marrow, spleen and lymph nodes is given. These changes can be broken down into 3 periods. Period I from the start of irradiation until a

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Changes in the blood system...

dose of 630 r. Changes in the peripheral blood and the hemopoietic organs increase. The inhibition of granulocytopoiesis and thrombocytopoiesis in the peripheral blood and the inhibition of lymphopoiesis in the spleen and lymph nodes are accompanied by a rise in leukopenia and thrombopenia in the peripheral blood. Thanks to greatly heightened regeneration in the erythropoietic system, the red blood does not change. After a dose of only 60 r relative hyperplasia of the red growth begins. These data are contrasted with those of O.V. Belousova (Ref. 1: Patologicheskaya fiziologiya ostroy luchevoy bolezni (The Pathological Physiology of Acute Radiation Sickness), M., Medgiz, 1958, pp. 192-211). Period I is therefore the period of primary reactions, marked by early simultaneous onset of changes in erythropoiesis and leukopoiesis, inhibition of the white growth and hyperplasia of the red. Period II from 900 r to 1410 r. This is first marked by a sharp drop in the absolute number of erythropoietic cells, followed by stabilization on a low level. The number of nucleus-containing cells in the bone-

Card 2/4

Changes in the blood system...

marrow fell to 33% of normal as a result. Mitotic activity was greatly inhibited in both the marrow and the lymphopoietic organs. The lack of rising blood system changes in this period indicates that the rabbits were adapting to the rhythm of irradiation; new reparative processes apparently developed under the protracted irradiation. Period III from 1920 to 2490 r. This is marked by relative normalization of the hemopoietic organs' quantitative composition; total cellularity increases to 66% of normal, as opposed to 33% in period II. Mitotic activity increases and the number of erythroblastic cells rises more intensively. Under protracted irradiation qualitatively new cells, capable of division, can apparently emerge. In both the red and the white blood of the marrow, spleen and lymph nodes cell regeneration proceeds normally, but with greater mobilization of deep reserves of hemopoiesis, as is indicated by the increase in the number of reticular cells. The main preference is for erythropoietic regeneration, as the most important process for the continuation of life. There are 2 figures, 1 table and 20 references: 11 Soviet-bloc and 9 non-Soviet-

Card 3/4

Changes in the blood system...

bloc. The 4 most recent references to English-language publications read as follows: E. Lorenz and oth. Science, 107, 625-626 (1948); R.H. Mole, Brit. J. Radiol., 32, 380, 497 (1959); H. Quastler, J.P.M. Bensted, Z. Lamerton and oth. Brit. J. Radiol., 32, 380, 501 (1959); J.M. Jaftey, J. Histochem. and Cytochem., 4, 6, 516 (1956).

Card 4/4

17.1220

28233
S/581/61/000/000/004/020
D299/D304

AUTHORS: Bogatov, L.V. and Kalmykova, Z.I.

TITLE: A study of the functional state of the blood system in dogs at remote dates after the chronic action of ionizing radiation

SOURCE: Lebedinskiy, A.V. and Moskalev, Yu.I., eds. Biologicheskoye deystviye radiatsii i voprosy raspredeleniya radioaktivnykh izotopov; sbornik rabot. Moscow, Gosatomizdat, 1961, 38-48

TEXT: Tests were carried out on 4 groups of dogs, using the functional loading system. Group I received chronic gamma-irradiation at 10 r/day to a total dose of 1300 r. Group II received 4 shots of plutonium nitrate into the blood in a dose of 0.05 μc/kg (total dose 0.2 μ c/kg). Group III received combined external gamma-irradiation and plutonium nitrate as above. Group IV received chronic external gamma-irradiation at 18 r/day to a total dose of

Card 1/3

A study of the functional state...

954 r. The functional loads were: 1) massive single blood-letting; 2) intramuscular injection of skimmed milk and adrenalin; 3) 10 blood-letting sessions. In both test and control dogs the peripheral blood reaction to milk was marked neutrophilic leukocytosis with a stabnuclear shift. The reaction to single blood-letting was also the same in both test and control dogs, although blood restoration after the blood-letting returned to normal more quickly in the test than in the control animals, probably because the former had a more extensive basis for erythropoiesis. After 10 blood-letting sessions the erythrocyte and hemoglobin count dropped in all animals. The erythrocyte count returned to normal 21 days after the end of blood-letting in all dogs with the exception of those in group III (32 days). Symptoms of microplanocytosis were noted in group II and IV animals in the latter part of the blood-letting period. In group I animals the changes in the size of the erythrocytes due to blood-letting generally followed those in the control animals, but the tendency to spherocytosis was more marked in the former. The results indicate that the reaction of the peripheral blood to repeated

Card 2/3

A study of the functional state...

blood-letting was essentially the same in both test and control animals. At remote stages after ionizing irradiation the functional activity of the dogs' hemopoietic organs is on quite a high level. The inhibition of leukocytosis in the milk test and repeated blood-letting, the later appearance of reticulocytosis in the latter, the presence of microcytosis, retardation of blood coagulation, leukopenia and thrombopenia after repeated loss of blood - all indicate that full restoration of the hemopoietic system and the body's functional activity does not occur in every case, but depends largely on the time that has elapsed since chronic irradiation. This should be taken into account in clinical and experimental observations. There are 4 figures, 2 tables and 20 references: 19 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J.M. Yoffey, J. Histochem. and Cytochem., 4, 6, 516 (1956).

Card 3/3

BOGATOV, L.V.

Remote leucocytic reaction to milk and adrenaline in dogs following chronic exposure to ionizing radiation. Radiobiologiia 1 no.5:746-749 '61. (MIRA 14:11)

(RADIATION--PHYSIOLOGICAL EFFECT) (LEUCOCYTES)

4407

27200

S/742/62/000/000/016/021
I015/I215

AUTHORS: Bogatov, L.V., Kalmykova, Z.I., Kudasheva, N.P., and Rogacheva, S.A.

TITLE: The effect of intravenous injection of plutonium-239 nitrate on the course and result of radiation sickness in dogs

SOURCE: Plutoniy-239; raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya. Ed. by A.V. Lebedinskiy and Yu.I. Moskalev. Moscow, Medgiz, 1962, 103-114

TEXT: The chronic effect of Pu irradiation has been insufficiently studied. Experiments were carried out on 10 dogs weighing 19-32 kg. All the animals received i.v. 4 injections of 0.05 μCu/kg b.w. at intervals of one month between each dose. The observation

Card 1/2

S/742/62/000/000/016/021
I015/I215

The effect of intravenous injection...

lasted for 5 years till the death of the animals. The blood clotting time was determined by the method of Fonio, the prothrombine time - by the method of Borovskaya and Rovinskaya, the mechanical strength of the clot - by the method of Bolokhovskiy, the fragility of the capillaries - by the test of Nesterov, the osmotic resistance of RBC - by a hypotonic solution of NaCl, the general blood volume - by the hematocrite and the mean volume was calculated according to the formula, the diameter of RBC was determined with a micrometer. Every 4-8 weeks a sample of bone marrow was obtained by a sterile puncture and the number of nucleated cells per 1 $mm^3$ was determined with subsequent differential count per 1000 cells. A total dose of 0.2 $\mu$Cu/kg b.w. of $Pu^{239}$ administered in 4 fractions with an interval of 1 month between each dose resulted in the development of chronic radiation sickness in dogs. The main cause of death (75%) was the development of osteosarcoma the mean latent period of which was 3 years and 10 months. There are 3 figures and 3 tables.

Card 2/2

41621
S/205/62/002/005/008/017
D268/D308

27.1220

AUTHOR: Bogatov, L.V.

TITLE: Phagocytic reaction of the leucocytes in dogs' blood 5-7 years after severe external gamma irradiation

PERIODICAL: Radiobiologiya, v. 2, no. 5, 1962, 713 - 714

TEXT: Two groups of dogs were studied: 1) 3 given a total gamma radiation dose of 1,300 r 5 years previously, and 2) 6 given a dose of 954 r about 7 1/2 years previously. Phagocytic reaction was studied twice at an interval of 1 1/2 months by the usual method, slightly modified in the 2nd test. Pathogenic and non-pathogenic strains of Staphylococcus albus were used. The number of phagocytic leucocytes in 1 $mm^3$ of blood of the 1st group was 2-3 times below that of the nonirradiated control, while in the 2nd group there was a decline only in reaction to the pathogenic strain. As a result of severe gamma irradiation 5-7 years previously, therefore, phagocytic protection declined, though the leucocyte number for peripheral blood was normal, indicating a significant decline in natural immunity. There is 1 table.

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S/205/62/002/005/008/017
D268/D308

Phagocytic reaction of the ...

SUBMITTED: October 4, 1960

Card 2/2

S/241/63/008/002/003/006
D243/D307

AUTHOR: Bogatov, L.V.

TITLE: Reaction of the blood system in dogs to heavy blood loss long after chronic exposure to ionizing radiation

PERIODICAL: Meditsinskaya radiologiya, v. 8, no. 2, 1963, 28-35

TEXT: The aim of the present work was to determine the results of large (33-39%) blood losses on the blood system of animals previously exposed to external or internal irradiation. Seventeen dogs (weighing 17-33 kg each) were divided into 4 groups: 1) 3 dogs exposed 18 months previously to $\gamma$ radiation from a $Co^{60}$ source at 10 r/day, with a total dose of 1300 r; 2) 3 dogs injected 18 months previously with 0.2 μC/kg of Pu nitrate, at the rate of 0.05 μC/kg/month; 3) 6 dogs $\gamma$ irradiated 4 years previously with 18 r/day, the total dose being 954 r; 4) 5 dogs serving as controls. Blood samples were collected for analysis on the 1st, 3rd, 5th, 7th, 10th, 12th, 15th, 21st, 25th, 45th, 70th and 160th day after blood letting.

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Reaction of the blood system ...

The reactions of all 4 groups were very similar, restoration of peripheral blood occurring at the same time or even earlier in groups 1-3 as in group 4. No post-hemorrhagic reticulocytosis was observed in groups 1 and 2, without affecting the rate of regeneration. Regeneration of blood in 1-3 occurred with hyperplasia of the red cells in the bone marrow, which was more pronounced than in group 4. It is concluded that previously chronically irradiated dogs retain rather high blood regeneration ability. There are 3 figures and 1 table.

SUBMITTED: November 14, 1961

BOGATOV, L.V.

Reaction of the blood system in dogs to massive hemorrhage in late periods following a chronic action of ionizing radiation. Med. rad. 8 no.2:28-35 F'63 (MIRA 16:11)

BOGATOV, L.V.

Functional state of hematopoiesis in the bone marrow in dogs in late periods after chronic external irradiation. Radiobiologiia 3 no.5:682-688 '63. (MIRA 17:4)

20391

S/133/61/000/002/007/014
A054/A033

18.9530 1454, 1138, 1208

AUTHORS: Kolmogorov, V.L., Candidate of Technical Sciences, and Bogatov, N.A., Engineer

TITLE: Manufacture of Tubes Lined With Vinyl Plastics

PERIODICAL: Stal', 1961, No. 2, pp. 152-154

TEXT: On account of their great strength and the anti-corrosive properties of polyvinyl steel tubes with polyvinyl lining are being used to an increasing extent, mainly for aggressive liquids. The present technology applied in lining steel tubes with prestressed vinyl-plastics does not guarantee a complete bond between steel and the vinyl-plastic. Consequently, when the temperature changes during the operation, there is no uniform elongation or contraction of the steel tube and vinyl-plastic lining: the latter contracts or elongates up to 6 times the extent of steel tubing. These drawbacks can be eliminated by a simultaneous reduction of tube and plastic lining. This ensures a close adherence between them and enables the use of pressures up to 40 kg/sq cm. The relation between stresses and deformations is charac-

terized with sufficient accuracy with the aid of the following linear equation: $\sigma_s = 20 + 625\,\varepsilon$ (2), where $\sigma_s$ = stress, kg/sq cm; $\varepsilon$ = relative deformation. The diagram plotted for cylindrical vinyl-plastic specimens (18 mm in diameter and 30 mm in length) can be approximated with the formula:

$$\sigma_v = 10^2(3.06\,\varepsilon - 30.2\,\varepsilon^2) \qquad (3)$$

(Abstractor's Note: subscript v is the translation of the Russian subscript в (vinyl) and subscript s that of the Russian subscript с (stal'); the external specific pressure is calculated on the condition of equilibrium of the tube during reduction:

$$p = \frac{2\,(\sigma_s\, s_s + \sigma_v\, s_v)}{d + 2s_s - \Delta d} \qquad (4)$$

where d = diameter before deformation, $\Delta d$ = diametrical reduction of the plastic lining. To calculate the residual stresses in the plastic lining, it is necessary to determine the stresses of unrelief under the effect of a pressure p with reversed sign. When assuming equilibrium at unloading, the formula

$$p(d + 2\,s_s - \Delta d) = 2\,\sigma_s^p\, s_s + 2\,\sigma_v^p\, s_v \qquad (5)$$

Manufacture of Tubes Lined With Vinyl Plastics

is obtained ($\sigma_s^p$ , $\sigma_v^p$ = stresses during relief) or, when considering (4):

$$\sigma_s s_s + \sigma_v s_v = \sigma_s^p s_s + \sigma_v^p s_v \qquad (6)$$

When assuming the simultaneity of deformation under unloading,

$$\frac{\sigma_v^p}{E_v} = \frac{\sigma_s^p}{E_s} \qquad (7)$$

is obtained, where $E_s$, $E_v$ - elasticity moduli of steel and vinyl plastic. From formula (6) it follows that

$$\sigma_v^p = \frac{\sigma_s s_s + \sigma_v s_v}{\frac{E_s}{E_v} s_s + s_v} \qquad (8) .$$

The residual stresses of vinyl-plastics are determined by the algebraic summation of $\sigma_v$ and $\sigma_v^p$ and (based on (2) and (3)) have the following absolute value:

$$\sigma_v^o = 10^2 (3.06\varepsilon - 30.2\varepsilon^2) - \frac{1}{\frac{E_s}{E_v} s_s + s_v} (20 + 625\varepsilon) s_s + 10^2 (3.06\varepsilon -$$

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Manufacture of Tubes Lined With Vinyl Plastics

$$-30.2\varepsilon^2)\ s_v \qquad (9)$$

As vinyl-plastic expands at room temperature and the considerable residual stresses decrease in time to 2 kg/mm$^2$ , only a deformation $\varepsilon$ , ensuring a stress of $\sigma_v^0$ = 2 kg/mm$^2$ must be imparted to the tubes during manufacture; the required $\varepsilon$ value can be calculated by (9). Tests were carried out to prove this for a joint contraction of lined tubes, 68 x (3+5.5) mm in size with a diametrical reduction of the plastic coating of 1,2,3 and 4%. 18 samples were kept at room temperature for varying times. Next, the vinyl-plastic linings were separated from the steel tubes and the relative change in their diameter was determined (table). Coated tubes produced with joint reduction may be cooled considerably when being used. It was also found that the higher the residual stresses in the lining tube, the greater the temperature drops it will stand without separating. The value of residual stresses in plastic linings depends on the maximum temperature applied. At +20°C, the elastic stresses in vinyl-plastic linings amount to 2 kg/mm$^2$; when the temperature increases, they decrease proportionately and disappear at +80°C. The equilibrium of residual stresses in steel and vinyl plastic is expressed by

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Manufacture of Tubes Lined With Vinyl Plastics

$$\sigma_s^o = \sigma_v^o \frac{s_v}{s_s} \qquad (10),$$ where: $\sigma_v^o$ = stress applied in vinyl-plastic. Under thermal effects, residual stresses are connected with thermal stresses. The plastic lining separates from the steel surface when the sum of residual and thermal stresses is equal to 0. The following formula expresses the temperature range within which the lined tube is in good working condition:

$$\Delta t = \frac{\frac{\sigma_v^o}{E_v} + \frac{\sigma_s^o}{E_s}}{\alpha_v - \alpha_s} \qquad (11)$$

Thus, for instance, according to (10) and (11) tubes manufactured with a joint contraction (at +20°C, $\sigma_v^o$ = 2 kg/mm$^2$) have a temperature range of 100°C; between +20°C and -80°C the tube is monolithic and separation of steel and plastic lining occurs below -80°C. There are 3 figures, 3 tables, and 2 Soviet references.

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20391
S/133/61/000/002/007/014
A054/A033

Manufacture of Tubes Lined With Vinyl Plastics

ASSOCIATION: Pervoural'skiyy novotrubniyy zavod (The Pervoural' Novotrubnyy Plant) and Severskiy metallurgicheskiy zavod (The Seversk Metallurgical Plant)

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S/133/61/000/002/007/014
A054/A033

Manufacture of Tubes Lined With Vinyl Plastics

Fig. 2

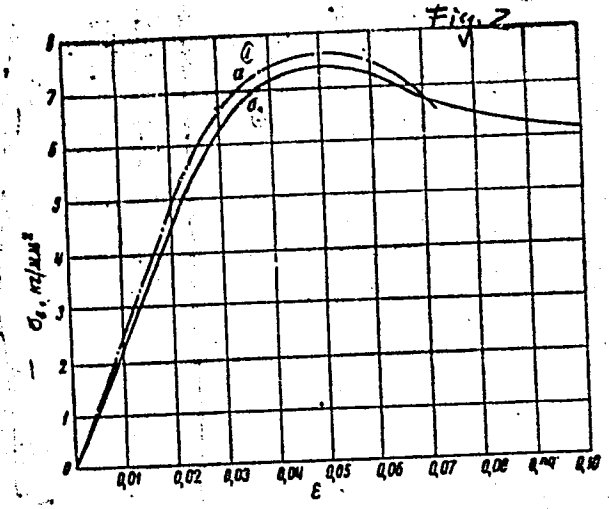


Figure 2:

Diagram of stresses and deformation, during contraction of vinyl plastic coating

1 - test curve
2 - approximation of the curve by (3). Elasticity modulus at unloading:

$E_v = 1.30 \cdot 10^4$ kg/cm$^2$

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Manufacture of Tubes Lined With Vinyl Plastics

Table 1

Relative changes in the vinyl-plastic tube diameter (in %) caused by residual stresses

| Holding time at + 20° C, hours | Deformation of vinyl-plastic at simultaneous reduction, in % | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| 168 | 0.69 | 1.69 | 0.45 | 0.37 |
| 192 | 1.34 | 1.42 | 0.72 | 0.23 |
| 216 | 1.01 | 1.25 | 0.85 | 0.47 |
| 240 | 1.13 | 1.40 | 1.07 | 0.71 |
| 408 | 1.27 | 1.19 | 0.67 | 0.47 |
| 576 | 1.09 | 0.99 | 0.71 | 0.55 |

Card 8/8

L 52213-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l) Pf-4

ACCESSION NR: AR5008965 S/0137/65/000/001/D040/D040
621.774.35

SOURCE: Ref. zh. Metallurgiya, Abs. 1D217

AUTHOR: Anisiforov, V. P.; Verderevskiy, V. A.; Bogatov, N. N.

TITLE: A new method for cold rolling pipe of variable cross section

CITED SOURCE: Tr. Vses. n.-i. i proyektno-konstrukt. in-ta metallurg. mashinostr., sb. 13, 1964, 5-20

TOPIC TAGS: metallurgy, rolling mill, pipe, cold rolling

TRANSLATION: The All-Union Scientific Research and Planning-Design Institute for Metallurgical Machine Building (VNIIMETMASH) has proposed a new method of cold rolling for more efficient production of pipe of variable cross section. Because of stand travel, a pipe section of variable cross section is very short, and lengthening it by means of increasing the travel of the stand does not appear possible. It was proposed that the length of a section might be increased by a regular change in the working length of the roll pass by changing the stand travel. During a certain

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ACCESSION NR: AR5008965

number of double passes (rolling cycle) travel should be reduced from maximum to a set figure so that the cross section of the bore and consequently the diameter of the pipe emerging from the rollers will be gradually changed (in this case increased). The length of the tapered section will depend on the change in the stand travel and the conditions of reduction. For purposes of experimental testing of this system of rolling, a working stand and hydraulic drive for a KhPT-75 mill were designed and manufactured. A special feature of the stand is the use of three idler rollers with a pass of varying cross section instead of drive rollers. The new design has several advantages as compared with previous designs. With the three-roller system, the diameter of the rollers may be reduced to 265 mm (roller diameter of the KhPT-75 mill is 550 mm) and consequently the drive power and weight of the mill may also be reduced. As a result the range in diameter of pipes rolled is increased to 120 mm. The marked reduction in roller diameter permits rolling of thinner-walled pipe without over-loading the mill; the shallow depth of cut of the bore produced by the use of three rollers substantially reduces slipping of the rollers on the pipe being rolled. A hydraulic following drive for the working stand was developed, manufactured and successfully tested at VNIIMETMASH, first on the test stand and then under industrial conditions. The hydraulic drive was tested together with the new design for the working stand. The hydraulic drive and its opera-

L 52213-65

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tion are described. Industrial tests of the new rolling system with the hydraulic drive have confirmed the possibility and economic feasibility of rolling tapered pipe.

SUB CODE: MM, IE ENCL: 00

Card 3/3

BOGATOV, P. I.

Grinding and Polishing

Vertical honong head with limited pressure., Stan. i instr., 23, no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952. Unclassified.

PALATNIK, L.S.; FEDOROV, G.V.; BOGATOV, P.N.

Processes of vaporization and volume condensation of alloys. Dokl. AN SSSR 158 no.3:586-589 S '64. (MIRA 17:10)

1. Khar'kovskiy politekhnicheskiy institut im. V.I.Lenina. Predstavleno akademikom S.A.Vekshinskim.

L 28858-66 EPF(n)-2/EWT(m)/ETC(f)/EWG(m)/T/EWP(e)/EWP(t)/ETI IJP(c) WH/DS/WW/
ACC NR: AP6010408 JW/JD/JG SOURCE CODE: UR/0126/66/021/003/0409/0413

AUTHOR: Palatnik, L. S.; Fedorov, G. V.; Bogatov, P. N.

ORG: Khar'kov Polytechnic Institute im. V. I. Lenin (Khar'kovskiy politekhnicheskiy institut)

TITLE: Patterns of evaporation of alloys

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 3, 1966, 409-413

TOPIC TAGS: evaporation, lead containing alloy, cadmium containing alloy, zinc, bismuth, magnesium, argon, temperature dependence, vapor condensation, vapor pressure

ABSTRACT: The investigation of these patterns in the presence of inert atmospheres is of interest in connection with the research into the processes of the volume condensation of metals. Pb-Bi, Pb-Sb, Zn-Cd, and Mg-Cd alloys were accordingly evaporated in a vacuum apparatus which was evacuated to a pressure of $1 \cdot 10^{-3}$ mm Hg, washed with argon and then evacuated to the specified pressure of argon (0.1-10 mm Hg). The metals were evaporated from alundum crucibles with the aid of tunsten or nichrome heaters. The resulting powdery condensates were investigated by methods of spectral and x-ray phase analysis. For uniform evaporation during spectral analysis the powdery condensate was mixed with graphite powder (1:4); the mixture was evaporated from a cylindrical recess in a graphite electrode. Pb-Sb and Pb-Bi alloys were evaporated at

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$T_{ev}$ of from 800 to 1300°C, condensation temperature $T_c$ = 80°C and argon pressure p = =3 mm Hg. Findings: at $T_{ev}$ = 800°C a marked selective evaporation of Sb takes place, since the vapor pressure of Sb is roughly 3.5 times as high as that of Pb. With increasing $T_{ev}$, however, the Pb content of the condensates increases and for $T_{ev} \geq$ ≥ 1200°C the composition of ths condensate is identical with that of the initial alloy. The same pattern of evaporation is observed for alloys of the Pb-Bi system, where also Pb is the less volatile component; in this case too the evaporation rates of the components of the Pb-Bi alloys become equalized when $T_{ev} \geq$ 1200°C. Zn-Cd alloys were evaporated at argon pressure 10 mm Hg, $T_c$ = 80°C and $T_{ev}$ = 400-900°C, and Mg-Cd alloys, at $P_{Ar}$ = 10 mm Hg, $T_c$ = 80°C and $T_{ev}$ = 500-1000°C. In both alloy systems Cd is the more volatile component and thus is the first to evaporate. The vapor pressure of Cd is 13 times higher than that of Zn (at 400°C) and the content of the less volatile component (Zn) increases with increasing $T_{ev}$. Hence the temperature at which the composition of the condensate is the same as that of the initial alloy can be estimated (by extrapolation) at 1500±100°C for Zn-Cd. By analogy, for Cd-Mg ($P_{Cd}/P_{Mg}$ = = 170) we extrapolate $T_{ev.cond.}$ = 2200±200°C. These experiments give reason to believe that the greater is the difference in the vapor pressures of alloy components the higher is the evaporation temperature of condensate $T_{ev.cond.}$ at which the condensate's composition approaches that of the initial alloy and the evaporation rates of both components become the same. Thus, $T_{ev}$ markedly affects the composition



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